

CLAIM AMENDMENTS

IN THE CLAIMS

This listing of the claims will replace all prior versions, and listing, of claims in the application or previous response to office action:

1. **(Currently Amended)** An arrangement for monitoring a measuring device disposed in a wheeled vehicle, comprising

- the measuring device, said measuring device being operable to measure three linear accelerations of the wheeled vehicle which are oriented perpendicular to one another and three rotation rates of a rotational movement or of a component of a rotational movement about ~~on respective three axis-axes~~ of the wheeled vehicle, the three axes running perpendicular to one another,

- an orientation determining device for determining an orientation of the wheeled vehicle from the three rotation rates in a coordinate system external to the vehicle, and

- a monitoring device for monitoring at least one of the measured linear accelerations using an output variable of the orientation determining device and using a comparison variable.

2. (Previously Presented) An arrangement according to claim 1, comprising a traveling velocity determining device for determining a traveling velocity of the wheeled vehicle and which is connected to the monitoring device, said monitoring device being designed to determine a comparison variable using the traveling velocity.

3. (Previously Presented) An arrangement according to claim 2, wherein the traveling velocity determining device is designed to determine the traveling velocity using a variable characterizing a rotation speed of a wheel of the wheeled vehicle.

4. (Previously Presented) An arrangement according to claim 2, wherein the traveling velocity determining device is connected to a steering angle determining device for determining a steering angle of at least one steerable wheel of the wheeled vehicle and wherein the traveling velocity determining device is designed to determine the traveling velocity using the steering angle.

5. (Previously Presented) An arrangement according to claim 2, wherein the traveling velocity determining device is connected to the measuring device and is designed to determine the traveling velocity using at least one of the three rotation rates.

6. (Previously Presented) An arrangement according to claim 1, wherein the measuring device has acceleration sensors for measuring the three linear accelerations and rotation rate sensors for measuring the three rotation rates and wherein the acceleration sensors and the rotation rate sensors are parts of a prefabricated constructional unit designed for mounting in the wheeled vehicle.

7. (Previously Presented) An arrangement according to claim 1, wherein the measuring device is designed such that the three linear accelerations can be measured as three measured variables linearly independent of one another.

8. (Previously Presented) An arrangement according to claim 1, wherein the measuring device is designed such that the three axes run pairwise perpendicular to one another.

9. (Previously Presented) An arrangement according to claim 1, wherein the monitoring device is designed to perform monitoring using the orientation and using a comparison acceleration, and is designed to determine the comparison acceleration without using the to-be-monitored linear acceleration measured by the measuring device.

10. (Previously Presented) An arrangement according to claim 1, wherein the monitoring device is designed to determine the comparison variable using a position of a vehicle body on which the measuring device is mounted or is to be mounted, relative to a chassis.

11. (Previously Presented) An arrangement according to claim 1, wherein the orientation determining device is designed to detect a stationary state of the wheeled vehicle and, in said stationary state, to determine the values for a specifically future determination of the orientation using at least one of the linear accelerations measured by the measuring device.

12. (Previously Presented) An arrangement according to claim 1, wherein the orientation determining device is designed to detect straight-ahead travel of the wheeled vehicle on a level surface and, in this driving situation, to determine values for a specifically future determination of the orientation using at least one of the linear accelerations measured by the measuring device.

13. **(Currently Amended)** A method for monitoring a measuring device disposed in a wheeled vehicle wherein the measuring device is designed to measure three linear accelerations of the wheeled vehicle which are oriented perpendicular to one another and three rotation rates of a rotational movement or of a component of a rotational movement about ~~an~~ respective three axis axes of the wheeled vehicle, the three axes running perpendicular to one another, the method comprising the steps of:

- determining at least components of an orientation of the wheeled vehicle in a coordinate system external to the vehicle from the three rotation rates and
- monitoring of at least one of the measured linear accelerations using at least the components of the orientation and using a comparison variable.

14. (Previously Presented) A method according to claim 13, wherein a traveling velocity of the wheeled vehicle is determined and wherein the comparison variable is determined allowing for the traveling velocity.

15. (Previously Presented) A method according to claim 14, wherein the traveling velocity is determined using a variable characterizing a rotation speed of a wheel of the wheeled vehicle.

16. (Previously Presented) A method according to claim 14, wherein the traveling velocity is determined using a steering angle of at least one steerable wheel of the wheeled vehicle.

17. (Previously Presented) A method according to claim 14, wherein the traveling velocity is determined using at least one of the three rotation rates measured by the measuring device.

18. (Previously Presented) A method according to claim 13, wherein the three linear accelerations are measured as three measured variables linearly independent of one another.

19. (Previously Presented) A method according to claim 13, wherein the three rotation rates are each measured as rotation rates about one of three axes running pairwise perpendicular to one another.

20. (Previously Presented) A method according to claim 13, wherein at least one of the components of the orientation and a comparison acceleration are used for monitoring and wherein the comparison acceleration is determined without using the linear acceleration to be monitored.

21. (Previously Presented) A method according to claim 13, wherein the comparison variable is determined using a position of a vehicle body on which the measuring device is mounted or is to be mounted, relative to a chassis.

22. (Previously Presented) A method according to claim 13, wherein to determine the orientation, a stationary state of the wheeled vehicle is detected and, during said stationary state, values for a specifically future determination of the orientation are determined using at least one of the measured linear accelerations.

23. (Previously Presented) A method according to claim 13, wherein to determine the orientation, straight-ahead travel of the wheeled vehicle on a level surface is detected and, in this driving situation, values for a specifically future determination of the orientation are determined using at least one of the measured linear accelerations.